Algebra II Scope and Sequence Aligned to SATEC Resources—DRAFT (4/06)

Conics (4–5 weeks)

Although much of the focus in Algebra II on functions, conics, as relations, are also critical. This unit will show the relationship between the algebra and geometry representations of conics as well as how parameter changes in equations for conics are connected to parameter changes of functions.

Objective	TEKS	TEKS Clarification	TAKS Objective	SATEC Lesson / Resources	SATEC Correlated Assessments	Dana Center Assessments[1]	Resources / Text
Describe conic sections as the intersection of a plane and a cone.	2A.5A	Apply previous knowledge of parameter changes to graphs of conics. Use the method of completing the square to write the graphing form of the equation. Identify conic sections when given the standard equation. Graph each conic section when given the equation in graphing form.	No TAKS Objectives	Conics Unit Web Page	See Conics Unit		Algebra II Institute Part A: V. 1.1
Identify the conic section from the given equation.	2A.5D			Conics Unit Web Page	See Conics Unit	Lost in Space	Algebra II Institute Part A: V. 1.1
Sketch the graph of a given conic from the equation and relate simple parameter changes in the equation to corresponding changes in the graph.	2A.5B			Conics Unit Web Page	See Conics Unit	Contemplating Conics	Algebra II Institute Part A: V. 1.2, V. 3.4, V2.3.4
Identify symmetries from the graphs.	2A.5C			Conics Unit Web Page	See Conics Unit		
Use the method of completing the square.	2A.5E			Conics Unit Web Page	See Conics Unit		
Perceive connections between algebra and geometry and use tools of one to solve problems of the other.	BU A4			Conics Unit Web Page	See Conics Unit		
Use math processes throughout, including problem solving, computation, communication, connections, reasoning, multiple representations, modeling, and justification.	BU A6				See Conics Unit		

[1] The Dana Center Assessments can be found on the Mathematics TEKS Toolkit at www.mathtekstoolkit.org/instruction/alg2.php.